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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/764,532

01/27/2004

Yasuyuki Shirasaka

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EXAMINER

SHINGLETON, MICHAEL B

ART UNIT

PAPER NUMBER

2817

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
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3 MONTHS

02/27/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/27/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/764,532	<b>Applicant(s)</b> SHIRASAKA ET AL.	
	<b>Examiner</b> Michael B. Shingleton	<b>Art Unit</b> 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.  
4a) Of the above claim(s) 2-11 and 13-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/04 one sheet</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Specification*

The disclosure is objected to because of the following informalities: The specification and/or the drawings appears to contain many errors. One example is that the specification recites Figure 2 as including a resistor  $R_{f3}$  and a resistor  $R_{s4}$ , etc. The examiner does not see these resistors in any of the Figures, yet these single resistors are recited as paramount to the invention. In fact many of the formulas are based on these circuit elements while the circuit does not contain these elements! Also the sensitivity  $S$  has the units "V/W". The examiner assumes that  $V$  is some sort of voltage and the examiner is not sure what applicant means by "W". It seems to be some sort of Width??? Also these units do not appear to be a result of the equation presented on page 12 of the specification. The "n" being "A/W" is multiplied by resistance, i.e. Ohms. The examiner does not see how "A/W" multiplied by Ohms results in "V/W". Another thing that appears to be in error is the temperature coefficient of  $S$  being "ppm/degrees C". The term "ppm" is commonly known as parts per million (ppm) and applicant has not defined this term to be anything different. Applicant has not said what applicant means by "ppm". If part per million is meant for ppm then what is changed in parts per million with respect to temperature?

Appropriate correction is required.

### *Election/Restrictions*

Applicant's election of Species II in the reply filed on 01-31-2007 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 2, 3, 5, 6, 13, 14, 16 and 17 are not directed toward the elected invention of Figures 2 and 3. Claim 2 upon which claims 3, 5 and 6 depend recites: a former-stage amplifier that includes a feedback resistor, resistors for determining sensitivity that includes "input resistors", "input voltage dividing resistors" and "feedback resistors". Claim 2 also recites: "the differential amplifier circuit being switched so as to select one of the resistive elements (emphasis added.)". Figures 2 and 3 have no means by which "one" i.e. a single resistive element is selected. Page 20 of the original specification recites that "by selectively supplying a bias voltage to the constant-current circuits F3 and F4 according to the wavelength, it is possible to selectively use one of the differential amplifiers A3 and A4". It might be said that the differential amplifier is "switched" from this page 20 passage of the specification, however, this certainly does not select a single resistive element. Note that all the resistive elements like  $R_{s31}$ ,

Rs41, etc. are still part of the entire circuit affecting the impedance etc. no matter which one of the amplifiers A3 and A4 are being used. There also is simply no switch in the elected invention that selects "one" of the resistance elements. In fact no switch appears to select any of the resistance elements in the elected invention. Thus what applicant identifies as part of the elected invention cannot possibly be to be part of the elected invention for the elected invention is incapable of performing the claimed function and does not have the structure of the claimed invention. Note that claim 2 does not which one of the resistive elements that is selected. There are many different resistive elements as the examiner noted in the beginning of this paragraph.

Claims 4 and 7 are similar to that of at least claim 2 above in that it too recites that the differential amplifier circuit being switched so as to select one of the resistive elements. There is no selection of any the resistive elements in Figures 2 and 3 and most certainly there is no selection of only a resistive element i.e. one of the resistive elements. Again note that all the resistance elements of the elected invention is always in the circuit and are never not selected. They all are selected. The elected invention just does not select one with all others deselected.

Claims 13, 14, 16 and 17 are similar to that above in that these claims too recites that the differential amplifier circuit being switched so as to select one of the resistive elements. Again all the resistive elements are selected all the time and there is no provision in the elected invention to select but one resistor and not the others.

Claims 15 and 18 are similar to that above in that these claims too recites that the differential amplifier circuit being switched so as to select one of the resistive elements.

Like claim 2 the all of the above identified claims just do not recite which one of the plurality of resistive elements is being selected. There is simply no switching arrangement that is used in combination with the resistors so that only one of the resistors is selected i.e. switched in the circuit. All the resistors of the elected invention remain selected at all times and therefore the above indicated claims are not directed toward the elected invention and are withdrawn from consideration.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyano US 5,912,590 (Miyano).

Figure 1 and the relevant text of Miyano disclose a photoreceptive amplifier circuit or sometimes called by applicant as an "optical pickup element". It is intended use of the circuit of Miyano to amplify a signal of a photoreceptor D1 and is not limited to just detecting a single non varying frequency. In other words the detection arrangement will have a bandwidth. Note the title of Miyano states: "Broad-band".

Element 37 of Miyano represents the claimed "former-stage" amplifier. Element R2 is a feedback resistor. Elements 38 or 39 represent a "latter-stage" amplifier. Resistors R4, R5, R25, R26 are examples of resistors that will in fact determine the sensitivity in Miyano. Note that Miyano inherently does this as these resistors are input resistors like that of applicant's Rs31 and Rs32 etc..

In the claims the language like "resistive elements having different temperature characteristics" is very broad. An invention is composed of real world elements and so is Miyano. Thus the temperature characteristics of these elements of Miyano inherently just cannot be exactly the same. Therefore these real world elements of Miyano are inherently "resistive elements having different temperature characteristics". Likewise the language like "the resistive elements varying depending on the types of wavelengths of the signals" is very broad. Of course every resistor element being different in construction even if only slightly different will vary in some aspect with respect to the types of wavelengths of the signals. For example all resistors have some capacitance and capacitance is a frequency dependent. No formula or specific relationship is recited by the claims. For example the feedback resistors have to have a resistance at is 20 percent larger than the input resistors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael B. Shingleton whose telephone number is (571) 272-1770.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ken Parker can be reached on (571)272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MBS  
February 16, 2007



Michael E. Shingleton  
Primary Examiner  
Group Art Unit 2815